



University of Pretoria Yearbook 2023

BEngHons (Metallurgical Engineering) (12240063)

Department Materials Science and Metallurgical Engineering

Minimum duration of study 1 year

Total credits 120

NQF level 08

Programme information

Refer also to G16-G29.

The curriculum is determined in consultation with the relevant heads of departments. A student is required to pass modules to the value of at least 128 credits.

The degree is awarded on the basis of examinations only.

Admission requirements

1. BEng degree awarded by the University of Pretoria **or** equivalent degree **or** relevant four-year bachelor's degree in engineering that the Engineering Council of South Africa (ECSA) regards as acceptable for registration as a candidate engineer and for eventual registration as a professional engineer
2. An entrance examination may be required
3. Comprehensive intellectual CV

Other programme-specific information

A limited number of appropriate modules from other departments are allowed.

Examinations and pass requirements

Refer also to G18 and G26.

- i. The examination in each module for which a student is registered, takes place during the normal examination period after the conclusion of lectures (i.e. October/November or May/June).
- ii. G18(1) applies with the understanding that under exceptional circumstances an extension of a maximum of three years may be approved: provided that the Dean, on recommendation of the relevant head of department, may approve a stipulated limited extension of this period.
- iii. A student must obtain at least 50% in an examination for each module where no semester or year mark is required. A module may only be repeated once.
- iv. In modules where semester or year marks are awarded, a minimum examination mark of 40% and a final mark of 50% is required.
- v. No supplementary or special examinations are granted at postgraduate level.



Pass with distinction

A student passes with distinction if he or she obtains a weighted average of at least 75% (not rounded) in the first 128 credits for which he or she has registered (excluding modules which were discontinued timeously). The degree is not awarded with distinction if a student fails any one module (excluding modules which were discontinued timeously). The degree must be completed within the prescribed study period.

General information

University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.



Curriculum: Final year

Minimum credits: 120

NLO 700 is a compulsory module

Core modules

[Electrometallurgy 700 \(NEL 700\)](#) - Credits: 30.00

[Fabrication engineering 700 \(NFE 700\)](#) - Credits: 30.00

[Physical metallurgy 700 \(NFM 700\)](#) - Credits: 30.00

[Heat treatment 700 \(NHB 700\)](#) - Credits: 30.00

[Hydrometallurgy 700 \(NHM 700\)](#) - Credits: 30.00

[Corrosion 700 \(NKR 700\)](#) - Credits: 30.00

[Research project 700 \(NLO 700\)](#) - Credits: 30.00

[Mechanical metallurgy 700 \(NMM 700\)](#) - Credits: 30.00

[Minerals processing 700 \(NMP 700\)](#) - Credits: 30.00

[Applied theory of sampling for minerals processing 701 \(NMP 701\)](#) - Credits: 30.00

[Metallurgical analysis 700 \(NPA 700\)](#) - Credits: 16.00

[Pyrometallurgy 700 \(NPM 700\)](#) - Credits: 30.00

[Welding metallurgy 700 \(NSW 700\)](#) - Credits: 30.00

[Refractory materials 700 \(NVM 700\)](#) - Credits: 30.00

[Welding processes 700 \(NWP 700\)](#) - Credits: 30.00

[Design of welded structures 701 \(NWP 701\)](#) - Credits: 30.00

Regulations and rules

The regulations and rules for the degrees published here are subject to change and may be amended after the publication of this information.

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.

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